

February 7, 2012

Ask the Expert

Topic: Winter Sports Injuries

Expert: Nicola DeAngelis, MD



Nicola DeAngelis, MD, is an orthopedic surgeon at UMass Memorial Medical Center and an assistant professor of orthopedics and physical rehabilitation at the University of Massachusetts Medical School, where he received his medical degree and served his residency before completing a sports medicine fellowship at Tufts Medical Center/New England Baptist Hospital. Dr. DeAngelis is board certified in orthopedic surgery and specializes in adult and pediatric sports medicine, particularly arthroscopic and reconstructive surgery for sports- and nonsports-related injuries.

Dr. DeAngelis played varsity football for Harvard University while earning his undergraduate degree in chemistry (*magna cum laude*) and is/has been team physician for Worcester Academy, Worcester Polytechnic Institute and Worcester State University. He has a unique depth of experience in caring athletes of all abilities and is widely respected among his colleagues for his skill and compassionate care of players of all ages.

Now that winter is here, people will be hitting the slopes for some outdoor fun. Unfortunately, with winter sports like skating, sledding, snowboarding and skiing come winter sports injuries—like bruises, sprains, dislocated shoulders and elbows, torn ligaments, broken bones and more.

Dr. DeAngelis answered your winter sports injury-related questions to help you have a safe and fun outdoor sports season.

Q: Can you explain causes of shin splints and how to prevent them? Is this something only caused by running or is it possible to get shin splints from activities like skiing and snow-shoeing?

A: Shin splints are an inflammation in the muscles in the back of the lower leg where they attach to the shin bone, or tibia. They usually arise from overuse and although they are more common in running or jumping sports, they can be seen in other sports as well.

Prevention of shin splints usually centers around stretching and the progressive increase in the intensity and duration of activity. Treatment includes rest, stretching, strengthening of the involved muscles, and treatment for inflammation, including medication and local treatments such as ice, ultrasound, and electrical stimulation.

Q: After a day of skiing, if I am having some back pain, should I apply ice or heat? Or both? Help!

A: *In general*, ice is better for inflammatory problems such as back pain. Heat may be a better choice before you start skiing to warm up the muscles. If you have persistent pain or suspect an injury, it's best to consult your doctor.

Q: *My son is 4 years old and we are considering signing him up for beginner ski class with other kids ages 4-6. In your opinion, is this too young for a child to start a sport like this? Are there pros and cons to consider that differ from other sports like soccer and gymnastics?*

A: As long as he has good supervision and instruction, I think it is very reasonable for your 4 year-old son to learn to ski. He should wear a helmet and make sure that his equipment fits well—a good instructor would insist upon such protection. I don't think there is any increased risk over soccer or gymnastics, and sometimes very young children have trouble effectively participating in team sports until they are a little older.

Q: *When skating or skiing, if I feel myself falling is it better to fall forward, to the side or backward to avoid injury? Is there a falling "technique" proven to reduce injury? Sorry for the silly question!*

A: This is a difficult question to answer. I think each direction has certain risks to it, and in skating and skiing you honestly may have no control over which way you fall. Our natural inclination when falling is put our hands out in front (or behind) us, which increases the risk of broken wrists. But without any scientific evidence to back it up, I would suggest trying to cover your head with your arms/hands when you fall, to try to avoid head and wrist injuries. All skiers and skaters—anyone participating in sports on the slopes or on the ice—should wear helmets to minimize the risk of head injury.

Q: *Is it necessary to warm up before skiing or snow boarding? My children don't do this and I'm wondering if they are more prone to muscle strain, etc.*

A: There is not much evidence that stretching and warming up clearly decrease the risk of injury before activities, especially in children. In general, I think it is okay for your children to ski or snowboard without a specific warm-up regimen.

Q: *I just had my ankle fused, 8-12 weeks no weight bearing, but there is lots of snow in my back yard. Should I use a crutch or a knee walker?*

I would suggest you stay out of the yard until you can put some weight on that ankle.

Q: *How can I strengthen my ankles for skiing? I am prone to sprains and "twists" and wonder if there are things to be aware of that would help.*

A: There are several exercises that help with ankle stabilization, but for your specific needs you should touch base with your primary care doctor; he or she most likely can give you a set of these exercises or arrange for you to see a physical therapist or trainer so you can learn the exercises. I could suggest exercises but often they're difficult to

describe in writing and I wouldn't want you to inadvertently cause damage by doing them incorrectly!

Q: *I have patellar tendonitis. What winter activities can I do with my kids that won't worsen this? My children are 7, 9 and 13 and love skiing and snowboarding. I used to ski; do you think it's a bad idea?*

A: In general, patellar tendonitis is aggravated the most by running and jumping activities, so skiing and snowboarding are certainly not the worst choices. I think it is reasonable to try these activities with your kids and see how you feel. Just be careful and take it slowly.

There are treatments for patellar tendonitis that involve stretching, strengthening and decreasing inflammation. If you have not had any of these treatments it makes sense to see a physical therapist or a trainer to learn them.

Q: *My husband is constantly complaining about his hip pain, which he has had for past 8 years but doctors have always told him it's due to his scoliosis and not to worry. He is 38 and wants to train for running 5k and half marathon with me and I want him to. What would you suggest?*

A: It sounds like your husband should be evaluated again, and possibly sent to see a sports medicine doctor or another physician who specializes in musculoskeletal injuries. It is possible that his symptoms are coming from a problem with his back, but there are other possibilities as well, and there should be some treatment options for him to allow him to return to at least certain sports or activities.

Q: *Some mornings and I wake up and have terrible pain in my heel. I am an active female in my 40's and average weight. Some days I feel like I can't even walk on it because it feels like my foot might give out from putting my weight on it. Any idea what this could be?*

A: The most likely source for this kind of pain is plantar fasciitis, which is an inflammation in the tissues that support the arch of your foot where they attach to the heel. It usually hurts the most in the morning. You should speak to your primary care physician as there are some treatment options such as certain stretches or night splints that could help.

Q: *My 11-year-old son and his friends often say their heels are "asleep" after skateboarding and sometimes after snowboarding. Is this normal?*

A: It can be. Boys that age will often get some inflammation in the growth plate in the heel that can give them pain or numbness. The name for this is Sever's disease. It is usually something that goes away over time as the growth plate closes.

Q: Since childhood I have fairly frequent subluxations [dislocations] in my right shoulder which I can pop back in. After a ski fall last week it is happening more frequently. Any exercises I can do to help?

A: There are definitely exercises that help with shoulder stabilization. They work primarily on rotator cuff strengthening (these are the muscles attached to the ball of the shoulder) and peri-scapular strengthening (the muscles around the shoulder blade). If you are having trouble with increasing instability, a physician should evaluate your shoulder to make sure you are not doing more damage.

Q: Could you provide some tips for back and neck pain and stiffening while I'm working on the computer? This happens more and more especially after doing activities like skiing and ice skating. How do I help this while at work? Thank you.

A: There are stretching and strengthening exercises that help with posture and shoulder, back and neck pain. Usually the most effective way to learn these exercises is to have a physical therapist or a trainer teach them to you. Your primary care doctor should be able to help you arrange this.

Musculoskeletal

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- Trauma care for orthopedic injuries

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- [Nicola DeAngelis, MD Physician Profile](#)
- [Find a Orthopedic Physician at UMass Memorial Medical Center](#)
- [American Academy of Orthopaedic Surgeons.](#)